## Justified True-or-False Statements

**Description:**

Justified true-or-false statements are questions that ask students to examine a set of statements. Students can draw upon mathematical reasoning to analyze the statements and describe why they are true or false.

**Example:**

|  |  |  |  |
| --- | --- | --- | --- |
| The graph of the following equations have a vertical asymptote | Yes | No | Justification |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

**Why It Is Useful:**

Justified true-or-false statements are useful as a learning tool/assessment because they ask students to justify their choice, rather than just take a chance that they answered correctly. More marks can be awarded to the justification, as it is the portion that is important. If students can make a rational argument in favor of their choice then they deserve to be rewarded accordingly. For example, all students should understand that one counterexample proves a conjecture to be false, but finding even multiple examples does not prove the conjecture to be true.

**How It Should Be Used:**

This is useful as an assessment tool; it can be used to verbally assess the class’ knowledge, on a test as a thinking question, and for group work. It is important to not use this for questions that require simple recall, it should be used for questions that require students to think and analyze.